FOCUS, NEGATION AND N-WORDS IN HUNGARIAN

It is a reasonably well-known fact about Hungarian that two, independent negative particles are possible in the presence of Focus:

(1) János nem A HAMLETET$_F$ nem olvasta
     John not THE HAMLET$_F$ not read   'It is not Hamlet that John has not read'

In this paper we first show how the independence of the two negative particles follows from a DRT-based analysis of Hungarian Focus, and then we handle two problematic cases that have to do with the interaction of Focus with n-words like *senki* 'no-one'. These cases, we think, shed some light crosslinguistically on presupposition accommodation and the use of Skolem functions in semantic analysis.

Following much of the literature we take Hungarian Focus to introduce an existence and a maximality presupposition, and to assert that the referent of the Focus-marked expression is identical to the main referent introduced in the presupposition. For instance, MARI$_F$ will be represented in a linear DRS-format as (2): ∂ is a presupposition operator ([1]), C is a set of contextually salient alternatives, P is a placeholder for the property contributed by material following Focus, and Σ is the abstraction operator of DRT ([3]). (2) says that there is an α from alternative set C, α is maximal with respect to property P, and that α is identical to m, the discourse referent introduced by the proper name.

(2) $[m|\ \partial([C,\alpha|C(\alpha) \wedge P(\alpha) \wedge \alpha = \Sigma[\alpha'|C(\alpha'); P(\alpha)]]);\ \alpha = m]$

We take post-Focus material to have the status of a presupposition, and pre-Focus material to contribute to the assertion part of the sentence. Given these assumptions and a formalisation like that in (2) the two negative particles that surround Focus in (1) will not interact, because they contribute to separate levels, or compartments, in the semantic representation of the sentence. The DRS (or an equivalent logical representation) for (1) is straightforward to construct: it is presupposed that there is a unique thing John has not read, and it is asserted that this thing is not identical to Hamlet. In sum, on our analysis the two *nem*s do not interact because they are kept apart at the level of semantic representation. We are aware that there may well be an underlying syntactic reason for the independence of the two negative particles, but here we merely assume that semantic representations are built according to appropriate syntactic output.

In the remainder of the paper we discuss two cases when Focus interacts with negative indefinites and the n-word *senki* 'no-one'. We think these cases present complications that require the original, simple proposal for Hungarian Focus to be extended so as to cover functional construals and presuppositions involving (natural) functions.

The first case involves a negative expression in postverbal position, which appears to bind a variable in the Focus-marked expression:

(3) A KISHÚG-Á$_i$-RA$_F$ nem hallgat senki$_i$/egy diák$_i$ sem
     THE LITTLE-SISTER-POSS3SG$_i$-ONTO$_F$ not listens no-one$_i$/one student$_i$ SEM
     'The person no-one$_i$/no student$_i$ listens to is his little sister'

(3) shows a Connectivity effect typical of English copular constructions; the postverbal expression needs to bind a variable within the Focus-marked expression, without being covertly raised. (It can be checked that the 'raised' variant will mean something different, see (4) below.) The solution we propose essentially follows functional analyses of Connectivity: (3) is taken to mean that there is a unique contextually salient function f such that no student x listens to $f(x)$, and that f is identical to the function that maps people onto their little sisters. As a corollary, we accept that the presupposition triggered by Hungarian Focus can be about contextually salient functions. A technical point is that we depart from Jacobson's classic analysis of functional construals ([2]) and work with Skolem functions instead (cf. [4]).

(4) Egyetlen diák$_i$/Senki$_i$ sem A KISHÚG-Á$_i$-RA$_F$ hallgat
     'For no student$_i$/no-one$_i$ is it the case that it is his$_i$ little sister that he$_i$ listens to.'

The second case we discuss is exemplified by (4). The problem here is a syntax–semantics mismatch, whose resolution is difficult for reasons that have to do with variable binding. The problem is the following: in addition to the 'official' presupposition yielded by the construction algorithm the sentence has another reading, with a different presupposition, and the task is to derive this second reading from the first, while respecting the bound or dependent status of variables.

The 'official' presupposition constructed by our algorithm has narrow scope relative to the n-word (or the negative indefinite): For every member x of a contextually salient group it is presupposed that there is a unique α_x that x listens to, and it is asserted that α_x is not identical to x's little sister.

(5) $[X|\mathbf{C}(X); [x|x \in X]\langle \forall x\rangle[\partial([\alpha_x, C|\ldots]); \alpha_x \neq s_x]]$

According to native speaker intuitions (5) has a reading where the presupposition scopes over the n-word: It is presupposed that for every x from some group X, there is a unique α_x that x listens to. The first difficulty in deriving this reading from (5) is that the presupposed subformula from 'official' (5) cannot be simply copied into a superordinate DRS, because the referents x and α_x would become unbound. The second difficulty has to do with bound discourse referents needing to be made accessible in the assertion part of the sentence. Suppose we have derived the right presuppositional DRS from (5) — now we want to relate the presupposition to what is asserted (for each x, the α_x x listens to is not his little sister). The problem is that we either export α_x from the scope of the universal quantifier (destroying variable binding again), or we have to resort to a series of complex operations in order to be able to relate presupposed and asserted discourse referents, AND preserve binding relationships. We first construct the set A of α_xs for which there is an x from X and x listens to α_x, and after that we introduce a new duplex condition stating that for all x-s, x's 'own' α_x is not his little sister.

Instead of this complicated mechanism we rely on a logical equivalence that allows us to exchange narrow scope existential quantifiers for wide scope Skolem functions. $(\forall x.\exists y.P(x,y) \cong \exists f.\forall x.P(x, f(x)).)$ On this account the presupposition triggered by Focus will (again) involve a unique contextually salient Skolem function, which scopes over the universal quantifier. In the case of (4) it is presupposed that x listens to $f(x)$, and it is asserted that the predicate *little sister* is not in the range of f. This analysis facilitates the derivation (global accommodation) of the unofficial presupposition from (5) and offers a way of relating presupposition and assertion without intermediate construction steps.

To conclude, the use of funtional construals of DPs can help account not only for Connectivity effects, but also for difficult-looking cases of global presupposition accommodation. Future work will be needed to clarify interactions with other presupposition triggers in the sentence (notably, with the presuppositions of possessives, which have been completely ignored here). Another open question concerns modified numerals in Focus position: Our analysis appears to make the prediction that prime candidates for the Focus position are expressions amenable to a functional analysis, whereas modified numerals, which do not allow for a functional interpretation, are perfectly acceptable in the Focus position. (Indeed, for $MON \downarrow$ numerals Focus seems to be the preferred position.) A tentative answer would be that even though this analysis *admits* functional construals, it does not exclude non-functional ones. Possibly, a functional construal is like a last resort for semantic composition.

References

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